

1) c

7) d

2) c

8) c

3) d

9) d

4) d

10) d

5) c

11) N/A

6) d

12) a

$$\begin{array}{r|rrrrr}
 16) & 6 & -6 & 5 & -12 & 1 \\
 -2 & \downarrow & -12 & 36 & -82 & 188 \\
 \hline
 & 6 & -18 & 41 & -94 & 189
 \end{array}$$

$$6x^3 - 18x^2 + 41x - 94 \quad r189$$

$$17) f(-\frac{1}{2}) = -2$$

$$6(-\frac{1}{2})^4 + n(-\frac{1}{2})^3 - 14(-\frac{1}{2})^2 + 2 = -2$$

$$\frac{6}{16} + \frac{-n}{8} - \frac{14}{4} + 2 = -2$$

$$\frac{3}{8} - \frac{n}{8} - \frac{28}{8} = -4$$

$$n - 25 = -32$$

$$n = -7$$

19) V.A.'s $-1, 1$ \therefore zeros are $-1, 1$

$$y = A(x+1)(x-1)$$

$$y = A(x^2 - 1)$$

$$\text{Reciprocal: } \frac{1}{A(x^2 - 1)} = y$$

pt (0, 1)

$$1 = \frac{1}{A(0^2 - 1)}$$

$$= \frac{1}{-1A}$$

$$A = -1$$

$$\therefore y = \frac{-1}{x^2 - 1}$$

$$20) x(12 - 2x)(15 - 2x) = 162$$